Amendments in the specification:

1) Please replace the paragraph beginning on line 8 of page 37 with the following paragraph:

When beam **106** of incident light **58** is focused and light **58** is incident from side **a**, ϕ_R for thick substrate **104** is given by:

~~$$\phi_R = \frac{4\pi n t_s \cos\theta_2}{\lambda} \quad \text{Eq. 34}$$~~

$$\phi_R = \frac{4\pi t_s \cos\theta_1}{\lambda} \quad \text{Eq. 34}$$

In this case phase ϕ_R is independent of the refractive index. Hence, one can fit equations 31 and 34 by simply adjusting a_1^2, a_2^2 and t_s. One can also use equation 33 to calculate t_s, with $n_1=n_2=1.0$. Graphs of normalized reflectances for incident light **58** being illuminated from side **a** and area fractions a_2 ranging from 0% to 40% as above are shown in Fig. 8. Note that incident light **58** is focused on front side **a** in this case.

2) Please replace the paragraph beginning on line 8 of page 40 with the following paragraph:

Apparatus **180** takes advantage of the fact that refractive, catadioptric or purely reflective optics can be used to guide incident light **192** and response light **196** (**198**). In fact, purely reflective optics are advantageous when incident

wavelength range $\Delta\lambda$ is large, e.g., when it extends from 190 nm to 1000 nm. In the present embodiment $\Delta\lambda$ is large and thus apparatus **180** employs a set of reflective optics **200, 202** in the form of curved mirrors. Mirror **200** directs incident light **192** to sample **186**. Mirror **202** receives response light **196** from sample **186** and directs it to detector **194**. In a preferred version of apparatus **180** mirrors **200, 202** are toroidal ~~torroidal~~ mirrors. For general information about the use of toroidal ~~torroidal~~ mirrors the reader is referred to U.S. Pat. No. 5,991,022.

3) Please replace the paragraph beginning on line 10 of page 20 with the following paragraph:

The choice of range $\Delta\lambda$ of incident light **14** is such that substrate **16** is semi-transparent or even ~~event~~ transparent at any particular wavelength, e.g., at λ_i, within range $\Delta\lambda$. Therefore, at a particular wavelength, e.g., at λ_i, response light **24, 28** undergoes multiple internal reflections and transmissions before emerging from substrate **16**.